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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/693,077	10/24/2003	Qing Yang	022193-105.11US	3381
20350	7590	01/14/2005	EXAMINER	
TOWNSEND AND TOWNSEND AND CREW, LLP TWO EMBARCADERO CENTER EIGHTH FLOOR SAN FRANCISCO, CA 94111-3834			DINH, NGOC V	
			ART UNIT	PAPER NUMBER
			2187	

DATE MAILED: 01/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/693,077	Applicant(s) YANG, QING	
	Examiner NGOC V DINH	Art Unit 2187	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 2 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 2 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>10/24/2003</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

INFORMATION DISCLOSURE STATEMENT

1. The Applicant's submission of the IDS filed 10/24/2003 have been considered. As required by M.P.E.P. 609 C(2), a copy of the PTOL-1449 is attached to the instant office action.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 and 2 are rejected under 35 U.S.C 103(a) as being unpatentable over Yu PN 5,764,903, and in view of Wipfel et al PN 6,353,898.

Per claims 1 and 2, Yu teaches an information backup system [mirroring system, title, abstract; fig. 1] comprising:

A first computing system [primary server side, fig. 1, 7] including: a first local disk [158, fig. 7] includes a first disk drive [156, fig. 7]; a first network interface [18, fig. 1] that is connected to a computer network and include a first network driver [160, fig. 7; col. 3; col. 7, line 5 to col. 8 line 65; col. 12 line 65 to col. 18, line 31];

A second computing system [secondary server side, fig. 1, 7] including: a second local disk [170, fig. 7] includes a second disk drive [168, fig. 7]; a second network interface [36, fig. 1] that is connected to a computer network and include a second network driver [162, fig. 7; col. 3; col. 7, line 5 to col. 8 line 65; col. 12 line 65 to col. 18, line 31].

Yu does not teaches a first and second local RAM means responsive to communications from said first/second network driver and said first/second disk driver, for writing data to and reading data from said first/second local RAM.

Art Unit: 2187

Wipfel teaches a first and second local RAM [e.g., each node includes a local memory for storing data and instructions ...the local memory may include RAM, col. 8, lines 11-20] means responsive to communications from said first/second network driver and said first/second disk driver, for writing data to and reading data from said first/second local RAM.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to further include a local RAM, as taught by Wipfel, into each Yu's computer system. Doing so would increase the system throughput and reduce access latency in the system. This is because RAM is a memory device which provides faster read time than ordinary hard disk and provides for faster overall system performance without requiring additional hardware or connectivity. This type of circuit which is well known in the art as firmware. Furthermore, RAM is the high rates at which individual read/write operations can be carried out, typically some orders of magnitude faster than read/write rates of the disc-based system, thus increases the system throughput.

In general, a computer system comprises a CPU, or processor, coupled to a RAM, a ROM, a mass storage device and a network interface card for communication with another computer system in the network. The local Ram as mentioned above is a well-known memory device for fast data access. Request for data can be satisfied from the RAM device instead of from the comparatively slower regular storage device. It takes long time to access data on the external memory (hard disk) because a head reading must be physical move. However, it takes a shorter time to access the data on RAM device, because RAM device is made of semiconductor, thus rapid data transfer in the network is increased.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- a. Beeler, Jr. PN 5,974,563 discloses network backup system.
- b. Wahl et al PN 6,324,654 discloses network remote mirroring system.
- c. Obara PN 6,772,365 discloses backup method on network.
- d. Wakabayashi US 2002/0178174 discloses backup system in a network.
- e. Ohran US 2001/0037371 discloses mirroring network data.

Art Unit: 2187

- f. Moulton et al US 2001/0042221 discloses redundant array network.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ngoc Dinh whose telephone number is (703) 305-3023. The examiner can normally be reached on Monday-Friday 8:30 AM-5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Donald A. Sparks, can be reached on (703) 308-1756. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 746-7239 for regular communications and (703) 746-7238 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

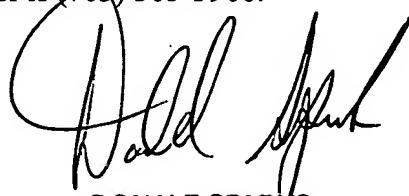


NGOC DINH

Patent Examiner

ART UNIT 2187

January 7, 2005



DONALD SPARKS
SUPERVISORY PATENT EXAMINER